

California Benefits

The benefits of high-speed trains are significant and widespread. Highlights include:

- Enhance the Economy - The high-speed train project is estimated to create nearly 75,000 full-time jobs during each year of construction. The projects is anticipated to generate hundreds of thousands of permanent jobs statewide once completed. By improving mobility, the project is anticipated to help enhance the productivity of California’s businesses and workers, providing further stimulus to the state’s economy.
- Protect the Environment - High-speed trains use 1/3 the energy of air travel and 1/5 the energy of auto travel. Early estimates show that high-speed trains will reduce CO2 emissions by more than 12 billion pounds a year over the long term.
- Reduce Traffic - The statewide system is estimated to reduce the need for four to six additional lanes on Interstate 5.
- Improve Local Traffic - Many existing at-grade railroad street crossings will be separated from vehicle traffic, improving traffic flow and relieving congestion.
- Better Connections - Provides a safer, time- and cost-efficient alternative to automobiles and will help relieve overcrowding at major airports.
- Provide Much-Needed Revenue - High-speed trains will stimulate local economies. By 2020, the system is estimated to contribute \$348 million per year in tax revenues for Los Angeles County and \$103 million per year in tax revenue for Orange County.



Trip Statistics	
Los Angeles to Anaheim	
Distance:	29 miles
CO2 Saved/trip:	21.75 lbs
Travel Time	
High-Speed Trains:	20 mins

Anaheim to San Francisco	
Distance:	465 miles
CO2 Saved/trip:	349 lbs
Travel Time	
High-Speed Trains:	2 hrs 57 mins

Los Angeles to San Francisco	
Distance:	432 miles
CO2 Saved/trip:	324 lbs
Travel Time	
High-Speed Trains:	2 hrs 38 mins

*Based on California High-Speed Rail Authority Web site as of October 2009

Investing in California’s Future

In November 2008, California voters made a commitment to support and fund the development of a high-speed train system to improve long-distance transportation and reduce reliance on vehicle and air travel. Proposition 1A provides \$9 billion for building the high-speed train system and \$950 million for improvements to other rail services that connect to high-speed train service.

To fully develop the statewide system, the Authority will pursue federal funds and private partners to finance the remaining cost to build the project. Approximately \$8 billion is allocated nationally to high-speed train projects in the 2009 federal stimulus package and the CHSRA is working hard to ensure that the California High-Speed Train receives a portion of the available funds.

OCTA, the Authority’s first local funding partner, has invested more than \$7 million to support the completion of the project-level environmental study.

The state’s investment combined with the progress being made on the system’s technical study makes California the national leader in developing a high-speed train system.



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Get Involved

The project team is available to answer your questions and receive your comments. In addition, please let us know if you are interested in receiving our e-mail updates, or would like to schedule a high-speed train presentation at your organization’s next meeting.

Visit our Web site at: www.cahighspeedrail.ca.gov

Call us at: (877) 724-5422

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California High-Speed Train Project

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Los Angeles to Anaheim Section
Defining the High-Speed Train Route: Alternatives Analysis Phase

California High-Speed Rail –
A Look Back

With more than a decade of research, planning, engineering, environmental and economic review supporting the development of statewide high-speed train service, California voters passed a \$9.95 billion bond measure for an 800-mile high-speed train system connecting Northern and Southern California.

Inspired by successful high-speed train projects in countries across the globe, the State of California began exploring high-speed trains in the mid-1990s as an additional transportation option to relieve demand on our stressed highways and airports. The California High-Speed Rail Authority (CHSRA) was created by the State Legislature and the Governor in 1996 and tasked to prepare a plan to build an economically viable high-speed train service that would link major metropolitan areas and help sustain the state’s long-term mobility and economic growth.

In 2005, the Authority certified the Statewide Program-Level Environmental Impact Report (EIS/R). This document incorporated more than 2,000 public and government agency comments and outlined preferred corridors and stations for the majority of the line. The Authority is currently in the process of completing project-level environmental reviews for each regional section of the statewide system.



California’s Transportation Future

The CHSRA is planning high-speed train service for travel between major metropolitan areas of California. High-speed trains provide intercity passenger train service with maximum operating speeds in excess of 200 mph. The system will be electric-powered using proven technology that is in operation around the world in countries including Japan, Spain and France. This fast, safe and reliable system will be capable of carrying tens of millions of passengers annually within the next two decades.



Los Angeles to Anaheim Section Route



Where Will It Go?

The Los Angeles to Anaheim section is well-positioned to be one of California's first constructed high-speed train sections. The local financial contribution from the Orange County Transportation Authority (OCTA) has helped keep the section's environmental review process moving forward despite challenges related to the state budget.

The high-speed train will travel at speeds up to 110 mph in urban corridors, taking passengers from Los Angeles Union Station to the future Anaheim Regional Transportation Intermodal Center in approximately 20 minutes. The high-speed trains will travel along the existing Los Angeles-San Diego-San Luis Obispo Rail Corridor (LOSSAN) currently utilized by BNSF, Metrolink and Amtrak trains. An additional station is being considered for either Norwalk/Santa Fe Springs or Fullerton. The high-speed train will travel through the cities of Anaheim, Fullerton, Buena Park, La Mirada, Norwalk, Santa Fe Springs, Pico Rivera, Montebello, Commerce, Bell, Vernon and Los Angeles.

Environmental Process

The project-level environmental review process for the Los Angeles to Anaheim section was initiated in January 2007. The purpose of the environmental review process is to identify potential environmental impacts and develop mitigation measures to address the impacts whenever possible. The process also includes many opportunities for public review and comment.

A project-level Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) will be completed in accordance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) and in cooperation with the Federal Railroad Administration (FRA). In spring 2007, public scoping meetings were hosted in Anaheim, Norwalk and Los Angeles to receive public comment on the issues that should be examined as part of the environmental analysis.

The technical team is currently collecting and studying environmental data on the existing corridor to use as the baseline for future environmental analysis. Additionally, they are in the process of developing preliminary engineering plans, including track alignment, grade separations, bridges and foundations, station platforms and overhead catenary systems. These are being advanced toward 15% design.

The resource areas the EIS/R will study include, but are not limited to:

- Noise
- Air Quality
- Land Use/Planning
- Transportation/Traffic
- Environmental Justice
- Aesthetics
- Public Services
- Biological Resources

The Draft EIS/R is anticipated to be released in mid 2010, at which time the public will have an opportunity to officially comment.

Project Alternatives

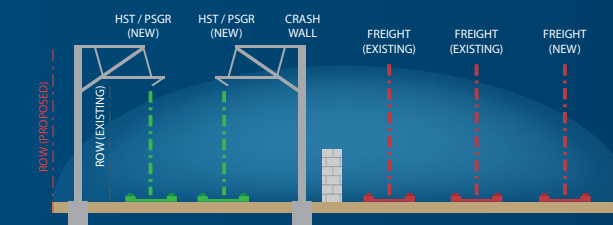
The CHSRA has developed an Alternatives Analysis (AA) Report for the Los Angeles to Anaheim section. The Report used preliminary planning, environmental and engineering information to identify feasible alternatives to carry forward for further environmental review and preliminary engineering design in the Los Angeles to Anaheim HST Project EIS/R. The Alternatives examined primarily relate to the alignment of the tracks within the corridor, station locations and consideration for whether high-speed trains should operate on their own dedicated tracks or share track space with other commuter rail services.

The analysis used information from the 2005 Final Statewide Program EIS/R identifying the LOSSAN Corridor as the route, combined with public and agency comments received in response to the Project EIS/R scoping process (Spring 2007) and from ongoing interagency coordination meetings. The Authority and FRA also provided direction to help identify the initial alternatives being carried forward for detailed environmental review.

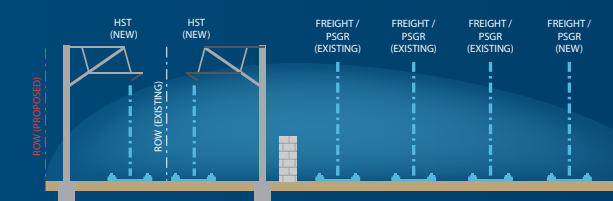
Various options were screened using a series of evaluation methods to determine feasibility. The Alternatives were evaluated on their ability to:

- Maximize ridership and revenue potential
- Limit impacts to surrounding communities
- Encourage connectivity and accessibility with other transit modes
- Minimize operating and capital cost

Typical Shared-Track Configuration



Typical Dedicated-Track Configuration



Dedicated vs. Shared Tracks

Two alternatives were considered to determine if high-speed trains could operate on a shared track with other passenger trains or if tracks dedicated only to high-speed trains need to be built.

Shared Tracks (2 HST/Passenger Tracks & 3 Freight Tracks): Under this scenario, high-speed trains would operate on the same tracks as Metrolink and Amtrak trains. Five tracks would be needed: two for high-speed trains and passenger trains; three for freight and passenger trains. This option requires a waiver from the FRA.

Dedicated Tracks (2 HST Tracks, 3 Passenger/Freight Tracks, & 1 Future Passenger/Freight Track): In this scenario, separate tracks would be built specifically for high-speed trains along the corridor. This would require six tracks: two for high-speed trains and three for freight and passenger trains with space reserved for a fourth track in the future.

The Authority is moving forward with the Dedicated-Track Alternative. The Dedicated-Track Alternative provides the capacity and operational performance goal of carrying up to five high-speed trains per hour and removes potential impacts that could delay Metrolink and Amtrak service, maximizing the safety and operations of the system.

Environmental Process



The Alignment

Whenever possible, high-speed train tracks will be built at-design options include: grade (ground level), however there are sections of the corridor where different design options must be used. The

- Aerial:** Trains travel on an elevated structure. This option is being considered in areas such as Hobart Yard, a large train service facility just south of Union Station.
- Trench:** Trains travel through a shallow trench that remains uncovered. This option is being considered at the Fullerton Municipal Airport.
- Tunnel:** Trains travel underground through a tunnel. This option is being considered in an area in the City of Anaheim, where there is limited space and right-of-way for the project.

For several areas of the corridor a single design option has not yet been determined, as technical study is ongoing in order to determine which options are feasible and should be carried forward in the Draft EIS/R.

For a copy of the full Alternatives Analysis Report, visit www.cahighspeedrail.ca.gov.



**Map reflects design options as of August 2009 and is subject to change.*